

What is claimed is:

1. An apparatus for partitioning moving picture data comprising:
 - a first quantizing unit for first-quantizing a received video signal and
 - 5 outputting a first-quantized signal; and
 - a second quantizing unit for second-quantizing the first-quantized signal and partitioning the first-quantized signal into a preceding part and a succeeding part.
- 10 2. The apparatus of claim 1, wherein the second quantizing unit comprises:
 - a second quantizer for re-quantizing the first-quantized signal to generate an output signal;
 - a first variable length coder (VLC) for variable-length coding the output
 - 15 signal generated by the second quantizer;
 - a second inverse-quantizer for inverse-quantizing the output signal generated by the second quantizer;
 - a third combiner for performing subtraction operation of output signals generated by a first inverse-quantizer and the second quantizer;
 - 20 a second VLC for variable-length coding output signals generated by the third combiner and the second quantizer; and
 - a data partitioner for outputting output signals generated by the second VLC and the first VLC.
- 25 3. The apparatus of claim 1, wherein the preceding part and the succeeding part comprise at least one frequency component.

4. The apparatus of claim 2, wherein the second quantizer outputs an even-approximated coefficient as the preceding part by having a quantization interval set to a predetermined value.

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5. The apparatus of claim 2, wherein an output signal of the third combiner is an odd-remainder coefficient as the succeeding part equal to a predetermined value.

10 6. The apparatus of claim 5, wherein the odd-remainder coefficient comprises code information when the odd-remainder coefficient is equal to a first value and a pertinent even-approximated coefficient is not equal to a second value.

15 7. The apparatus of claim 6, wherein the first value is approximately 1.

8. The apparatus of claim 6, wherein the second value is approximately 0.

20 9. The apparatus of claim 5, wherein the odd-remainder coefficient as the succeeding part is equal to approximately 0.

10. The apparatus of claim 5, wherein the odd-remainder coefficient as the succeeding part is equal to approximately 1.

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11. An apparatus for partitioning moving picture data comprising:

a coding unit for outputting a stream comprising a DCT coefficient divided into an even-approximated coefficient and an odd-remainder coefficient by first-quantizing and second-quantizing a received video signal; and

5 a decoding unit for obtaining a first-quantized signal by performing inverse-quantization about the stream generated by the coding unit and obtaining a restored video signal by performing inverse-quantization about the first-quantizing.

12. The apparatus of claim 11, wherein the coding unit comprises:

10 a first quantizer for outputting a first-quantized signal by first-quantizing a received video signal;

a second quantizer for outputting an even-approximated coefficient by re-quantizing the first-quantized signal;

a first VLC (variable length coder) for variable-length coding an output

15 signal of the second quantizer;

a second inverse-quantizer for inverse-quantizing an output signal of the second quantizer;

a third combiner for outputting an odd-remainder coefficient by performing subtraction operation of output signals of the second inverse-quantizer and the

20 first quantizer;

a second VLC (variable length coder) for variable-length coding output signals of the third combiner and the second quantizer; and

a data partitioner for outputting output signals of the second VLC and the first VLC as a data-partitioned stream.

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13. The apparatus of claim 12, wherein an output signal of the third

combiner is an odd-remainder coefficient.

14. The apparatus of claim 13, wherein the odd-remainder coefficient comprises code information when it is equal to a first value and a pertinent even-approximated coefficient is not equal to a second value.

15. The apparatus of claim 12, wherein the decoding unit comprises:
a divider for dividing the data-partitioned stream into a preceding part and a succeeding part;
10 a first VLD (variable length decoder) for outputting an even-approximated coefficient by variable-length decoding the preceding part;
a first inverse-quantizer for inverse-quantizing an output signal of the first VLD;
a second VLD (variable length decoder) for variable-length decoding the
15 succeeding part;
a first combiner for outputting a first-quantized signal by combining an output signal of the first inverse-quantizer with an output signal of the second VLD;
and
a second inverse-quantizer for outputting a video signal by performing
20 inverse-quantization and inverse discrete cosine transform of the first quantized signal.

16. A method for partitioning moving picture data, the method comprising:
25 outputting a first-quantized signal by first-quantizing a received video signal;

partitioning the first-quantized signal into a preceding part and a succeeding part through a second quantization; and

outputting an output signal generated as result of the second quantization as a partitioned stream signal.

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17. The method of claim 16, wherein the partitioning step comprises:
re-quantizing the first-quantized signal to generate a re-quantized signal;
variable-length coding the re-quantized signal;
inverse-quantizing the re-quantized signal and calculating a difference

10 based on the first-quantized signal; and

variable-length coding the calculated difference.

18. The method of claim 17, wherein the re-quantized signal is an even-approximated coefficient corresponding to the preceding part.

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19. The method of claim 17, wherein the calculated difference is an odd-remainder coefficient corresponding to the succeeding part.

20. The method of claim 16, wherein a stream is constructed by inserting a texture marker for separating the preceding part and the succeeding part.

21. A method for partitioning moving picture data, the method comprising:

25 generating a first-quantized signal by first-decoding a received stream;
and

restoring a video signal by second-decoding the first-quantized signal.

22. The method of claim 21, wherein the generating comprises:
dividing the received stream into a preceding part and a succeeding part;
5 variable-length decoding and inverse-quantizing the preceding part;
variable-length decoding the succeeding part; and
outputting the first-quantized signal by adding the preceding part to the
succeeding part.

10 23. The method of claim 22, wherein the preceding part is an even-
approximated coefficient.

24. The method of claim 22, wherein the succeeding part is an odd-
remainder coefficient.

15 25. A system for partitioning moving picture data, the system
comprising:

a first inverse-quantizing mechanism for generating a first-quantized signal
by first-quantizing a preceding part and a succeeding part of a data-partitioned
20 stream; and

a second inverse-quantizing mechanism for outputting a video signal by
performing inverse-quantization and inverse discrete cosine transform of the first
quantized signal.

25 26. The system of claim 25, wherein the first inverse-quantizing unit
comprises:

a divider for dividing the received data-partitioned stream into a preceding part and a succeeding part;

a first variable length decoder (VLD) for performing variable-length decoding of the preceding part to generate a first output signal;

5 a first inverse-quantizer for inverse-quantizing the first output signal of the first VLD;

a second VLD for performing variable-length decoding of the succeeding part; and

a first combiner for outputting a first-quantized signal by combining an
10 output signal of the first inverse-quantizer with an output signal of the second VLD.

27. The system of claim 26, wherein an output signal of the first VLD is an even-approximated coefficient.

15 28. The apparatus of claim 26, wherein an output signal of the second VLD is an odd-remainder coefficient.

29. A method of partitioning a streaming data, the method comprising:
quantizing the streaming data to generate a first quantized signal;

20 quantizing the first quantized signal to obtain an even-approximated coefficient;

obtaining an odd-remainder coefficient;

variable-length coding the even-approximated coefficient and the odd-remainder coefficient; and

25 outputting a data-partitioned stream based on said variable length coding.

30. The method of claim 29 further comprising:
- partitioning the data-partitioned stream into a plurality of data streams;
 - variable-length coding the respective data streams;
 - obtaining an even-approximated coefficient and an odd-remainder
- 5 coefficient through first inverse-quantization to output a restored video signal, based on a second quantization.